EXHIBIT A

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

IN RE GOOGLE DIGITAL ADVERTISING ANTITRUST LITIG.

Civil Action No. 1:21-md-03010-PKC

PLAINTIFFS' NOTICE OF DEPOSITION OF GOOGLE LLC

PURSUANT TO RULE 30(b)(6) OF THE FEDERAL RULES OF CIVIL PROCEDURE

TO ALL PARTIES AND THEIR ATTORNEY OF RECORD:

PLEASE TAKE NOTICE that pursuant to Rule 30(b)(6) of the Federal Rules of Civil Procedure, the MDL Plaintiffs will take the deposition(s) of corporate representative(s) of Google LLC regarding the subject matters identified in, and based on definitions provided in, Exhibit A. The deposition(s) will take place on June 13, 2024, commencing at 9:00 a.m. EDT, at Boies Schiller Flexner LLP, 55 Hudson Yards, 20th Floor, New York, NY 10001, or as otherwise agreed to by the parties.

PLEASE TAKE FURTHER NOTICE that in accordance with Rule 30 of the Federal Rules of Civil Procedure, the deposition will be taken before an officer authorized to administer oaths, and will be recorded by stenographic means and on videotape. The MDL Plaintiffs reserve the right to use the videotape of the deposition at trial.

Pursuant to Rule 30(b)(6) of the Federal Rules of Civil Procedure, Defendant shall designate and produce for deposition one or more officers, directors, representatives or agents, or other persons most knowledgeable, regarding all information known or reasonably available to it relating to the subject matters identified in Exhibit A.

Dated: May 10, 2024

/s/ Philip Korologos

Philip Korologos
BOIES SCHILLER FLEXNER LLP

55 Hudson Yards
New York, NY 10001
Telephone: 212-446-2390
pkorologos@bsfllp.com

Jordan Elias
GIRARD SHARP LLP
601 California Street, Suite 1400
San Francisco, CA 94108
Telephone: 415.981.4800
jelias@girardsharp.com

Serina M. Vash
HERMAN JONES LLP
153 Central Avenue #131
Westfield, New Jersey 07090
Telephone: 404-504-6516
svash@hermanjones.com

The MDL Plaintiffs' Discovery Steering Committee

EXHIBIT A

DEFINITIONS

The following terms are defined below solely for the purpose of this notice of deposition:

1. "Action" shall mean the above-captioned case.

2. "Ad Auction" shall mean any auction to sell Ad Inventory.

3. "Ad Impression" shall mean a specific advertising opportunity in a specific ad space on a Publisher's website that can be sold to an Advertiser.

4. "Ad Inventory" shall mean the range of potential Ad Impressions Publisher has available to sell on its webpages when Users load the webpages.

5. "Ad Tech Auction Mechanics" shall mean any and all systems and software that implement, effectuate, or modify any Ad Auction rules, preferences, designs, or features; this term includes, but is not limited to, Open Bidding (also known as "Exchange Bidding," "Jedi," "Jedi+," "Jedi++," or "Demand Syndication"), Open Auction, Dynamic Allocation, Enhanced Dynamic Allocation, Optimized Competition, Real-Time Bidding, OpenRTB, Unified Pricing Rules, First Look, Last Look, Reserve Price Optimization, Dynamic Revenue Share (also known as "Average Revenue Share"), Project Bernanke, Project Alchemist, Project Poirot, Project Elmo, or Minimum Bid to Win.

6. "Ad Tech Products" shall mean any and all systems, platforms, and software, including predecessors and successors, used in the process of identifying, selecting, transmitting, and/or rendering Digital Advertising on a desktop or mobile device, as well as all systems and software, including predecessors and successors, that implement and/or effectuate an Ad Auction, including, but not limited to, receiving, processing, and transmitting Bid Requests, Bid Responses, or related messages. The term includes, but is not limited to, Publisher Ad Servers, Advertiser Ad Servers, SSPs, DSPs, Demand-Side Products, Ad Exchanges, and Ad Networks,

and specifically includes Your products: Your Publisher Ad Server (formerly called "DoubleClick for Publishers" or "DFP"); Your Ad Exchange (formerly called "DoubleClick Ad Exchange" or "AdX"), Google Ads (formerly called "Google AdWords" or "AdWords"), Display & Video 360 (DV360), DoubleClick Bid Manager (DBM) (also known as "Google Bid Manager"), Campaign Manager, DoubleClick Campaign Manager (DCM), Google Display Network (GDN), Google Ad Manager (GAM), DoubleClick for Publishers (DFP), Google AdSense (also known as "AdSense for Content" and "AFC"), DoubleClick for Advertisers (DFA), Google Analytics, Google AdMob, Search Ads 360 (SA360), Google Search Network, and any other product or service, however named, that You provide, have provided, or will provide for the sale or intermediation of Digital Advertising.

7.   "Advertiser" shall mean any purchaser of online Ad Inventory on a Publisher's webpage to serve ads to those internet Users who visit a Publisher's webpage.

8.   "AdX/Open Bidding dataset" means the dataset Google produced on May 30, 2023, which consist of the files Bates numbered GOOG-AT-MDL-DATA-000066537-482007; GOOG-AT-MDL-DATA-000508827-58886.

9.   "Analysis" means any analyses, evaluations, or interpretations of Your Metrics, financial performance, expenses, or revenues. It also includes any analyses, evaluations, or interpretations of the Metrics, financial performance, expenses, or revenues of third parties, such as Advertisers, Competitors, and Publishers.

10.   "Authorized Buyer" shall mean a buyer participating in Your Authorized Buyers program. *See* https://support.google.com/authorizedbuyers/answer/9070822, last visited May 7, 2024.

11.   "Beta" shall mean a product or service that is released to a limited number of users before it is released to the general public.

12.   "Bid Request" shall mean an electronic message containing (directly or indirectly) information about the context of a piece of Ad Inventory (page content, URL, etc.) and the User (*e.g.*, cookie data) that can be used to solicit bids to purchase an Ad Impression, irrespective of whether the message or its contents has been modified for transmission to an Advertiser.

13.   "Bid Response" shall mean an electronic message generated in response to a Bid Request containing (directly or indirectly) a bid price and various pieces of information concerning proposed advertising content to fill an Ad Impression identified in the corresponding Bid Request.

14.   "Cost of Capital" shall mean a company's minimum required rate of return.

15.   "Competitors" shall mean any entity that offers any products or services that competes or has competed with Your Ad Tech Products or Ad Tech Services.

16.   "Demand-Side Products" shall mean Your Ad Tech Products that facilitate the purchase of Ad Inventory, including, but not limited to, AdWords, Google Ads, DoubleClick for Advertisers, Google Display Network, DoubleClick Campaign Manager, Google Campaign Manager, DoubleClick Bid Manager, DV360, Google Analytics, Analytics 360, and Google Audience Center.

17.   "Direct Sales" shall mean Ad Inventory that is sold by a Publisher without the use of open programmatic auctions, but including programmatic guaranteed line items managed by the Publisher, directly to Advertisers.

18.   "Direct Network Effect" means the phenomenon whereby a service improves across viewer engagement Metrics because the number of users or content increases.

19.   "Digital Advertising" means advertising inventory filled by way of the internet, as opposed to out-of-home, broadcast television, or print, including but not limited to video Digital Advertising, display (desktop and mobile) Digital Advertising, search Digital Advertising, in-app Digital Advertising, native Digital Advertising, rich media Digital Advertising and any other advertising categorized as Digital Advertising by You in Your ordinary course of business.

20.   "Document" or "document" shall be synonymous in meaning and equal in scope to the usage of the term "documents or electronically stored information" in Fed. R. Civ. P. 34(a)(1)(A) and shall have the same meaning as provided in L. Civ. R. 26.3.

21.   "DSP" shall mean Demand Side Platform.

22.   "DVAA" means Display and Video, Apps and Analytics as used in GOOG-AT-MDL-004326981, or as otherwise used in Google documents. The DVAA business segment means the business or reporting units as defined on page -6992 in GOOG-AT-MDL-004326981.

23.   "DVAA P&Ls" mean the profit and loss statements associated with the DVAA business segment and its reporting units or products, including documents identified by Google in its corrected response to DOJ's Interrogatory 11 (GOOG-AT-MDL-019564740), identified by Google in its supplemental response to DOJ's Interrogatory 3 (GOOG-AT-MDL-019564578), identified by Google in its response to DOJ's Interrogatory 14 (at page -4541, 4542 in GOOG-AT-MDL-019564531), the periodic reports created by Google's controller, and other similar documents otherwise provided by Google. The DVAA P&Ls include but are not limited to the Ad Business Segment P&Ls (such as GOOG-AT-MDL-008928778, and similar documents), DVAA Buyside/Sellside Lens P&Ls (such as GOOG-DOJ-AT-02649859, and similar

documents), and DVAA MECE P&Ls (such as GOOG-AT-MDL-009643876, and similar documents).

24.   "General Availability" or "GA" shall mean the release of a product to the general public.

25.   "Indirect Network Effects" shall mean the phenomenon whereby a product or service improves across viewer engagement Metrics because the number of users using a separate product or service increases.

26.   "Metric" or "Metrics" mean any measures of quantitative assessment that may be used for analyzing, evaluating, or interpreting Your business, Your budgets, Your financial performance, Your revenues, or Your Projections, including but not limited to the following: cost per mille (CPM), revenue per mille (RPM), cost per click (CPC), cost per impression, average advertiser yield, monthly active users (MAU), revenue split, total advertising revenue, take rate, transaction fees, total ad impressions, number of impressions, and/or daily active users (DAU). Metric also includes any measures of quantitative assessment that may be used for analyzing, evaluating, or interpreting the business, budgets, financial performance, revenues, or projections relating to third parties (e.g., Advertisers, Competitors, and Publishers), including but not limited to the following: cost per mille (CPM), revenue per mille (RPM), cost per click (CPC), cost per impression, average advertiser yield, monthly active users (MAU), revenue split, total advertising revenue, take rate, transaction fees, total ad impressions, number of impressions, and/or daily active users (DAU).

27.   "Opex Reclass" is the P&L line item referenced in the "Total Ads (Ext)" tab of GOOG-DOJ-AT-02647833, or as otherwise used in Google documents.

28.   "Projections" means any forecasts or evaluations of Your or a third parties' (e.g., Advertisers, Competitors, Publishers) future or predicted Metrics, financial performance, expenses, or revenues.

29.   "Publisher" shall mean anyone who serves content on the internet that is monetized by selling Ad Inventory to Advertisers.

30.   "Real-Time Bidding" or "RTB" shall mean that process by which Advertisers submit bids for Ad Impressions in real-time Ad Auctions.

31.   "Relevant Time Period" shall mean the time period from January 1, 2007 to the present.   Unless otherwise specified, the Relevant Time Period for all Subject Matter Areas listed herein is 2007 to the present.

32.   "Return on Invested Capital," which is sometimes abbreviated to "ROIC" is defined on page -7012 in GOOG-AT-MDL-004326981 or is defined as otherwise used in Google documents.

33.   "SSP" shall mean Supply-Side Platform.

34.   "Supply-Side Products" shall mean Your Ad Tech Products that facilitate the sale of Ad Inventory, including, but not limited to AdSense, DoubleClick for Publishers, AdX, Google Ad Manager, Google Ad Manager 360, Google Analytics, Analytics 360.

35.   "TAC" means traffic acquisition cost as used in the P&L Glossary on page -0719 in GOOG-AT-MDL-002190713 or is defined as otherwise used in Google documents.

36.   "User" shall mean the person who is viewing a web page and to whom an Ad Impression may be displayed through use of Your Ad Tech Products and/or Ad Tech Services.

37.   "XPP-M" shall mean the dataset Google produced on July 6, 2023, which consist of the files Bates numbered GOOG-AT-MDL-DATA-000561031 to GOOG-AT-MDL-DATA-000561262.

38.   "You", "Your", "Alphabet", or "Google" shall mean Defendants Google LLC, Alphabet Inc., and YouTube, LLC ("Defendants") and their past and present officers, employees, agents and representatives, parents and predecessors, divisions, subsidiaries, affiliates, partnerships and joint ventures. The terms "subsidiary," "affiliate," and "joint venture" refer to any firm in which there is total or partial ownership of twenty-five percent or more or total or partial control between the company and any other Person or entity.

39.   Any reference to Your Ad Tech Products or Your Ad Tech Auction Mechanics, individually or collectively, also shall include any successor or predecessor Ad Tech Products or Ad Tech Auction Mechanics bearing the same or similar functionality.

<div align="center">

SUBJECT MATTER AREAS

<u>RELEVANT MARKETS</u>

</div>

1.   Your analysis, description, and evaluation of the U.S. markets for digital online ads vs. offline ads; display ads vs. search and social media ads; web ads vs. mobile app ads; non-video and/or outstream video ads vs. instream video ads; ad sales made through ad tech intermediaries vs. "walled garden" ad sales made through a publisher's own "owned and operated" service platform; direct-to-advertiser and house ad sales vs. remnant ad sales; direct-to-advertiser and house ad sales vs. programmatic ad sales; guaranteed reservations vs. non-guaranteed ad campaigns.

2.   During the Relevant Time Period, Your analysis, description, and evaluation of the U.S. markets for Publisher Ad Servers, Ad Exchanges, Ad Networks, Ad Buying Tools for

<div align="center">9</div>

Large Advertisers, Ad Buying Tools for Small Advertisers, and Online Search Advertising, including:

    a.   The size (e.g., available and/or addressable demand, supply, transaction volume, addressable revenue, or similar metrics) of those markets;

    b.   Your share of those markets;

    c.   The identity of Your competitors in those markets and their respective shares of those markets, as well as digital display advertising spend;

    d.   Products and/or services that You consider or considered to be substitutes for, or reasonably interchangeable with, Your products and/or services in these markets;

    e.   Disadvantages that customers for each of Your products and/or services in these markets would bear in switching to substitute products and/or services in these markets;

    f.   Barriers to entry or expansion (including but not limited to switching costs, default biases, information or data asymmetries, and access to inputs or customers) faced by any other company that offers or offered, or which potentially may offer or have offered, any product or service in competition with Your products and/or services in these markets;

    g.   The actual or potential effect on the price(s), quality, and/or innovation of Your products and/or services in these markets caused by actual or potential competition from possible substitute products and/or services in these markets.

3.   Your analysis, description, and evaluation of any Direct or Indirect Network Effects between Your Advertiser-facing Ad Tech Products and Your Publisher-facing Ad Tech Products in the U.S. market for Publisher Ad Servers, Ad Exchanges, Ad Networks, Ad Buying Tools for Large Advertisers, Ad Buying Tools for Small Advertisers, and Online Search Advertising.

4.   During the Relevant Time Period, Your analysis, description, and evaluation of the U.S. markets for Online Video Advertising and Online Video Platforms or otherwise related to the buying, selling, auction, serving, and display of video advertisements, including:

a. The size (e.g., available and/or addressable demand, supply, transaction volume, addressable revenue, or similar metrics) of that market;

b. Your share of those markets;

c. The identity of Your competitors in those markets and their respective shares of those markets, as well as digital display advertising spend;

d. Products and/or services that You consider or considered to be substitutes for, or reasonably interchangeable with, Your products and/or services in these markets;

e. Disadvantages customers for each of Your products and/or services in these markets would bear in switching to substitute products and/or services in these markets;

f. Barriers to entry or expansion (including but not limited to switching costs, default biases, information or data asymmetries, and access to inputs or customers) faced by any other company that offers or offered, or which

11

potentially may offer or have offered, any product or service in competition with Your products and/or services in these markets;

g. The actual or potential effect on the price(s), quality, and/or innovation of Your products and/or services in these markets caused by actual or potential competition from possible substitute products and/or services in these markets;

h. the change in market share:

   i. following the transition from Flash to HTML5;

   ii. Following the restriction of access to YouTube video ad inventory as announced August 6, 2015.

5.   Your analysis, description, and evaluation of any Direct or Indirect Network Effects between Your Advertiser-facing Ad Tech Products and Your Publisher-facing Ad Tech Products in the U.S. markets for Online Video (OLV) Advertising and Online Video Platforms.

ACQUISITIONS AND DIVESTITURES

6.   Your acquisitions, including Your rationale and analysis of the actual or projected effect of the acquisition on Your share of, or competition in, the U.S. markets for Publisher Ad Servers, Ad Exchanges, Ad Networks, Ad Buying Tools for Large Advertisers, Ad Buying Tools for Small Advertisers, and Online Search Advertising, and Online Video Advertising of:

a. Applied Semantics in 2003;

b. YouTube in 2006;

c. DoubleClick in 2007;

d. Ad Mob in 2010;

e. Invite Media in 2010;

f.   AdMeld in 2011.

7.   Your analysis and evaluation of any potential partial or full sale, spin-off, or divestiture of Your products and/or services in the U.S. markets for Publisher Ad Servers, Ad Exchanges, Ad Networks, Ad Buying Tools for Large Advertisers, Ad Buying Tools for Small Advertisers, and Online Search Advertising, including but not limited to Your consideration of such divestiture in or about summer 2020.

8.   Your analysis and evaluation of any potential partial or full sale, spin-off, or divestiture of Your products and/or services in the U.S. markets for Online Video Advertising and Online Video Advertising Platforms, including but not limited to your consideration of such divestiture in or about summer 2020.

AUCTION MECHANICS

9.   For Ad Auctions in DFP, AdX, GAM (or its predecessors), Open Bidding (or its predecessors), AdSense, and Google Display Network, what information is available to Google that Google does not make available to Advertisers or Publishers, and Google's reasons for not providing such information to Advertisers or Publishers, including any changes to Google's practices or policies regarding provision of that information over time.

10.   Your policies over time regarding the ability of Google and non-Google DSPs to submit two bids to the AdX auction, and the frequency over time at which Google and non-Google DSPs submit two bids to the AdX auction.

11.   Any advantages to You or Your Ad Tech Products arising from Your access to or use or accumulation of information relating to past bidding behavior of bidders on an Ad Auction You conduct, including Exchange Bidding and Open Bidding, and the availability to

13

You of bid-related information for Publishers, Advertisers, and Ad Exchanges at each stage of the auction and Advertisers' valuation of Ad Impressions.

12. Distinctions between the methodologies employed in auctions conducted on Google's AdX Ad Exchange, auctions conducted on Google's Google Display Network, and auctions conducted on Google's AdMob network.

13. Google's pricing of display ads sold to Advertisers through Google Ads (formerly called "Google AdWords" or "AdWords"), including on CPM, CPC, CPA, or any other bases, and how such pricing changed since January 1, 2012, including how these pricing decisions were made and the factors considered by Google in setting such prices.

14. Google's pricing of in-app Digital Advertising sold to Advertisers through Google Ads (formerly called "Google AdWords" or "AdWords"), including on CPM, CPC, CPA, or any other bases, and how such pricing changed since January 1, 2012, including how these pricing decisions were made and the factors considered by Google in setting such prices.

15. Google's practice(s) of charging advertisers on one basis (*e.g.*, CPM, CPC, CPA, or any other bases or cost calculation) but paying publishers on a different basis, and how such pricing changed since January 1, 2012, including how these pricing decisions were made and the factors considered by Google in setting such prices and determining the basis of payment.

ACCOUNTING AND FINANCIAL REPORTING

16. Your DVAA P&Ls produced in this Action, including:

   a. How different versions of DVAA P&Ls relate to each other and change over time;

   b. The definition(s) of each product group, and identification of the reporting units or products of each product group;

c. The definition(s) of Served Revenue, and identification of each component

category within Served Revenue;

d. The definition(s) of Contra Revenue, and identification of each component

category within Contra Revenue;

e. The definition(s) of Cost of Sales and identification of each component

category within Cost of Sales, including identification of the cost items that

are included in each component and whether the cost is reported on a cash or

accrual basis;

f. The definition(s) of Operating Expense and identification of each component

category within Operating Expenses, including identification of the cost items

that are included in each component and whether the cost is reported on a cash

or accrual basis;

g. The methodology or process of calculating each of Served Revenue, Contra

Revenue, Cost of Sales and Operating Expense line items over time,

including:

i. How each line item is allocated, expensed, or assigned to different

products within the DVAA Business Segment, including any

exceptions made to the standard methodology or accounting policies;

ii. How each line item is allocated, expensed, or assigned between DVAA

Business Segment and other business or accounting units, such as

other Ad Business Segments, including any exceptions made to the

standard methodology or accounting policies.

15

h. Recognition of revenue on a net or gross basis and TAC as a cost of sale, including but not limited to principal and agent considerations. Any and all difference(s) between the "management" and "external" views in the DVAA P&Ls such as GOOG-DOJ-AT-02647833, GOOG-AT-MDL-008928777, GOOG-AT-MDL-008928778, and GOOG-AT-MDL-009709864, including:

    i. In the treatment of machine costs and for the "external" views as stated in the above-cited documents;

    ii. Explain the basis for the Opex Reclass for each individual line item, including identifying support and/or accounting policies and documents for this change.

i. Information in the underlying data of the DVAA P&Ls, such as the "Revenue Detail" tab in GOOG-AT-MDL-009643893 and similar documents, and how that relates to the DVAA P&Ls;

j. The relationship between the DVAA P&Ls and Google's reported public financials, such as annual reports.

17. The product metrics used to evaluate the financial performance of the DVAA products, including:

a. Return on Investment Google generated from its Ad Tech Products;

b. Google's risk-adjusted Cost of Capital applicable to each of its Ad Tech Products.

18. Your Owned and Operated (O&O) P&Ls for YouTube produced in this Action, including:

16

a. How different versions of YouTube P&Ls relate to each other and change over time;

b. The identification of the reporting units or products of YouTube;

c. The definition(s) of Served Revenue, and identification of each component category within Served Revenue;

d. The definition(s) of Contra Revenue, and identification of each component category within Contra Revenue;

e. The definition(s) of Cost of Sales and identification of each component category within Cost of Sales, including identification of the cost items that are included in each component and whether the cost is reported on a cash or accrual basis;

f. The definition(s) of Operating Expense and identification of each component category within Operating Expenses, including identification of the cost items that are included in each component and whether the cost is reported on a cash or accrual basis;

g. The methodology or process of calculating each of Served Revenue, Contra Revenue, Cost of Sales and Operating Expense line items over time, including:

   i. How each line item is allocated, expensed, or assigned to different products within YouTube, including any exceptions made to the standard methodology or accounting policies;

   ii. How each line item is allocated, expensed, or assigned between YouTube and other business or accounting units, such as other Ad

17

> Business Segments, including any exceptions made to the standard methodology or accounting policies;

> h. Recognition of revenue on a net or gross basis and TAC as a cost of sale, including but not limited to principal and agent considerations. Any and all difference(s) between the "management" and "external" views in the YouTube P&Ls;

> i. Information in the underlying data of the YouTube P&Ls;

> j. The relationship between the YouTube P&Ls and Google's reported public financials, such as annual reports;

> k. The decision to begin to identify YouTube separately in Google's reported public financials, such as annual reports.

19.   The product metrics used to evaluate the financial performance of the O&O YouTube platform and products, including:

> a. Return on Investment Google generated from its Ad Tech Products;

> b. Google's risk-adjusted Cost of Capital applicable to each of its Ad Tech Products.

20.   Information contained in the XPP-M dataset, including:

> a. Definition of Gross Revenue reported in the XPP-M data;

> b. Definition and components of TAC reported in the XPP-M data;

> c. How the data or information contained within the XPP-M dataset relates to or is used to develop, construct or populate the DVAA P&Ls over time and how the relationship changes over time;

d. The differences between the revenue and TAC reported in the XPP-M data and the DVAA P&Ls;

e. The values in the "pub_product" field of the XPP-M data and how the values relate to the "simplified_pub_product" field of the "Revenue Detail" tab of GOOG-AT-MDL-009643893 and similar documents;

f. The values in the "transaction_type" field of the XPP-M data and how the values relate to the "transaction_type" field of the "Revenue Detail" tab of GOOG-AT-MDL-009643893 and similar documents;

g. The values in the "buying_door" field of the XPP-M data and how the values relate to the "front_end" field of the "Revenue Detail" tab of GOOG-AT-MDL-009643893 and similar documents.

21. Information contained in the Adx/Open Bidding dataset, including:

a. Definition of "gross_rev_usd" reported in the AdX/Open Bidding data;

b. Definition of "pub_net_rev_usd" reported in the AdX/Open Bidding data;

c. How the data contained within the XPP-M data relates to or differs from the data provided in the AdX/Open Bidding data and how the relationship changes over time;

d. The differences between the revenue and TAC (amounts paid to the publishers) reported in XPP-M and the AdX/Open Bidding data;

e. The values in the "buying_door" and "adX_ad_source_type_name" fields of the XPP-M data and how the values relate to the "ad_source_type_name" field of the "Revenue Detail" tab of "GOOG-AT-MDL-009643893 and similar documents.

LOG-LEVEL DATA

22.   Information contained in the log-level data You produced at the following Bates

ranges, including the definitions of fields reported in that data:

a. GOOG-AT-EDVA-DATA-000147607 through GOOG-AT-EDVA-DATA-
000226014;

b. GOOG-AT-EDVA-DATA-000072607 through GOOG-AT-EDVA-DATA-
000147606;

c. GOOG-AT-EDVA-DATA-000012607 through GOOG-AT-EDVA-DATA-
000042606;

d. GOOG-AT-EDVA-DATA-000042607 through GOOG-AT-EDVA-DATA-
000072606;

e. GOOG-AT-MDL-DATA-000066510.

AD TECH CONTRACTS AND REVENUE SHARE

23.   Your contracts with Publishers, Advertisers, DSPs, or SSPs regarding any of Your

Ad Tech Products, including:

a. The general terms of such contracts;

b. General changes to those contracts or their terms over time, including the
timing of such changes;

c. Your practices or policies for the interpretation of such contracts;

d. Your contracts with Publishers for GAM or any pairing of AdX and DFP, and
the number of Publishers with such contracts;

e. Your contracts with Publishers related to the product known by Google as
Yavin, and the number of Publishers with such contracts;

f.   Your contracts with Publishers for or related to AdX Direct, and the number of Publishers with such contracts;

g.   Your contracts or agreements with Publishers for data authorization order forms, and the number of Publishers with such contracts;

h.   Your contracts with Advertisers for any Ad Tech Product through which YouTube video inventory was available after December 31, 2015 (as announced) August 6, 2015, including but not limited to DoubleClick Bid Manager (DBM), Google AdWords, and Google Preferred, and the number of Advertisers with such contracts;

i.   Terms of Service which are incorporated by references into Your contracts, including changes thereto and the timing of those changes.

24.   Your fees, margins, revenue shares or take rates for Your Ad Tech products, including:

a.   Your process for determining the percent or amount of Your margins or take-rates in Your Ad Auctions from January 1, 2010 to the present;

b.   The percent of advertising revenue paid by Advertisers that Publishers receive when selling inventory with Your Ad Server and/or through Your Exchange, Network, or Ad Buying Tools;

c.   The revenue shares and fees that You charge in connection with Your Ad Tech business from January 1, 2010 to the present, and whether such fees were disclosed to auction participants;

    d.   The process for deviating from AdX's standard 20 percent revenue share for

open auction transactions, and the percentage of Publishers, if any, that

negotiated a revenue share lower than 20 percent.

25.   Your revenue share or take rate charged for in-app impressions sold through AdX,

GAM, and/or AdMob; any changes to those revenue shares during the Relevant Time Period;

and any reasons for charging different take rates based on whether Google's SDK or a third-

party SDK is used.

26.   Your Terms of Service and other contracts applicable to Advertisers purchasing

display or in-app Digital Advertising from You, and how such contracts changed since January

1, 2016, including terms regarding pricing and arbitration.

27.   Your marketing efforts, objectives, and strategies directed toward Advertisers in

relation to display or in-app Digital Advertising since January 1, 2016.

CONTENTION TOPICS

28.   For each act or course of anticompetitive conduct alleged against You, the factual

basis of Your contention that Your conduct was "lawful, justified, procompetitive, and carried

out in Google's legitimate business interests and constitutes bona fide competitive activity," and

that "the benefits of which significantly outweigh any alleged anticompetitive effects," as stated

in Your Answers, ECF 737 at 48, ECF 738 at 46, ECF 739 at 81, ECF 740 at 67, ECF 741 at 69,

ECF 742 at 78, including identification of documents or categories of documents that you intend

to rely on to support this contention.

29.   Identification of all Your defenses, whether or not formally raised in this Action,

the factual basis or bases for such defenses.

DFP, ADX, GOOGLE AD MANAGER

30.　　Your analysis and technical implementation of Your decisions to restrict or limit access to, or functionalities of, Your Publisher Ad Server (i.e., DFP), Ad Exchange (i.e., AdX), or any combination thereof (i.e., GAM), from 2009 to present, including:

    a.　Restricting access to live, competitive bids on AdX only to Publishers using DFP;

    b.　Restricting AdWords or Google Ads Advertisers to purchasing Digital Advertising exclusively from the Google Display Network or AdX, other than for remarketing purposes;

    c.　Encrypting User IDs that DFP assigns to Publishers' Users and restricting decryption of User IDs to Advertisers who bid through AdX or Google Display Network;

    d.　Restricting Publishers from using third-party ad servers to sell impressions on Your Ad Exchange;

    e.　Restricting Publisher's access to AdX demand through a non-DFP (or other Google) ad server and Google's analysis of actual or potential integration of AdX with third-party or publisher in-house ad servers.

31.　　Your launch of Google Ad Manager ("GAM") and Your decision and/or practice to offer Your Ad Exchange and Your Publisher Ad Server only pursuant to a single contract for both, including the dates of the launch of GAM in Beta and GA.

32.　　AWBid (as that term is used in Your documents, e.g., GOOG-DOJ-11765613, GOOG-TEX-00218255), including the timing and rationale of the decision(s) to launch, partially launch, or not launch AWBid or any version or iteration thereof.

23

33.   The costs You incurred to display an advertisement through AdX over time, including any computing costs and any variable, fixed, or semi-fixed operating costs You incurred to display an advertisement through AdX, and the extent to which such costs are associated with operating the infrastructure of AdSense, GDN, AdX, or any other Google Ad Tech Product.

ADSENSE AND GDN

34.   The market in which You believe AdSense participates, any products that You consider to be competitors to AdSense (and how the availability of such products changed over time, if at all), AdSense's market share in such market, and the market share of the competitors You identify (if any).

35.   The process and formula by which an ad was selected to be displayed through AdSense over time, including but not limited to:

a.   Any preferences, settings, or functions available to publishers through AdSense's user interface;

b.   Any functions performed by AdSense, AdX, GDN, and/or Google's CAT2 mixer, Supermixer, and CAT2 Supermixer in deciding which advertisement is displayed through AdSense;

c.   The extent to which auctions for inventory available from Publishers using AdSense or other processes performed by You in connection with the sale of ad impressions by Publishers using AdSense differed from the auctions for inventory available from Publishers using DFP and AdX (or later, Google Ad Manager's successor product functions for DFP and AdX); and

d. The sources of advertising demand bidding on inventory offered for sale by Publishers using AdSense over time, including but not limited to whether and to what extent GDN, DV360, Authorized Buyers, and Certified Google Ad Networks could bid on ad impressions offered by Publishers through AdSense.

36.   Concerning the functions You provided to Publishers displaying advertisements through AdSense over time, including but not limited to the margins, take rates, percentage fees, flat fees, or any other charge that You levied for functions performed by AdSense, GDN, AdX, DV360, or the Authorized Buyers program (including any functions performed on the CAT2 mixer, Supermixer, and/or CAT2 Supermixer) in the process of displaying an advertisement through AdSense:

a. The prices You charged for these functions;

b. The factors You considered in setting those prices for these functions;

c. Any analysis You conducted for the purpose of deciding whether to change the prices You charged for any or all of these functions or change the pricing structure, including but not limited to the margins, take rates, percentage fees, flat fees, and/or whether to charge based on Cost-Per-Click, Cost-Per-Mille, and/or Cost-Per Action; and

d. The costs You incurred in providing AdSense's services to Publishers over time, including any computing costs and any variable, fixed, or semi-fixed operating costs You incurred to display an advertisement through AdSense, the extent to which such costs are associated with operating the infrastructure

of AdSense, GDN, AdX, or any other Google Ad Tech Product, and how such costs related to the prices You charged.

37.   GDN's processes for bidding on and buying ad inventory through AdSense, AdX, and/or a third-party Ad Exchange, including:

    a.   The process by which GDN determines whether to submit a bid in any auction or ad-selection process conducted by AdSense, AdX, or third-party Ad Exchange over time;

    b.   The process by which GDN calculates an advertisement's predicted clickthrough rate or "pCTR";

    c.   The information You use to calculate an advertisement's predicted clickthrough rate or pCTR, including any signal or other information collected by AdSense and transmitted to GDN, and any information collected by Google Ads and transmitted to GDN; and

    d.   The extent to which GDN's click-prediction or pCTR calculation process varied depending on whether GDN submitted the advertisement to AdSense, AdX, or a third-party Ad Exchange.

38.   Publishers' ability (or potential ability) to use AdSense to sell impressions to ad networks, ad exchanges, demand-side platforms, or any sources of advertising demand other than GDN, including, without limitation:

    a.   Any analysis You conducted studying AdSense publisher's consumer demand for the ability to sell impressions to networks, demand-side platforms, or any sources of advertising demand other than GDN;

b. Any analysis considering whether to market AdSense as a bundled product with GDN, AdX, and/or Your other ad tech products or as a standalone product; and

c. Any and all features, functions, or settings that You considered, planned, or implemented for AdSense with the purpose of allowing Publishers to manage their inventory to achieve higher revenue, including but not limited to any yield management functions, price floors or line items, integrations with third-party ad exchanges, third-party ad networks, third-party demand-side platforms, header bidding, exchange bidding, or open bidding services, or the ability to designate ad impressions for sale to specific advertisers or third-party ad networks.

39. Any analysis You conducted of the open-web advertising buying patterns of Google Ads customers, including any analysis of the proportion of advertisers that used Google Ads as their exclusive means of purchasing open-web ad inventory, and any analysis of the extent to which web publishers perceived Google Ads to offer demand from advertisers that used Google Ads as their exclusive means of open-web digital advertising.

DYNAMIC ALLOCATION AND ENHANCED DYNAMIC ALLOCATION

40. Dynamic Allocation ("DA") and Enhanced Dynamic Allocation ("EDA"), including, but not limited to:

a. Your decision and/or practice to allow AdX to outbid non-Google Ad Exchanges after reviewing their submitted bids (*i.e.*, "Last Look") as well as Your decision to discontinue this conduct, if such a decision was made;

b. The automatic enrollment of Publishers in DA and/or EDA;

c. Your decision and/or practice to restrict non-Google Ad Exchanges' ability to access DA or EDA;

d. Your decision and/or practice to use remnant line items, including line items representing average historical bids or live bids from Header Bidding Exchanges, to set Your price floor in DA or EDA;

e. Publishers' ability to customize the priority of various line items, including line items corresponding to bids from Header Bidding, and any changes restricting or expanding such ability;

f. Any changes You made over time to how the reserve price and/or the "Temporary CPM" and/or the "Value CPM" and/or the "opportunity cost" and/or the "eCPM" of direct-sold Impressions were calculated;

g. Any and all versions of the components, including the pacing algorithm, pricing algorithm, and population of the bidding distribution pipeline, relating to computation of the EDA Price, also known as the EDA opportunity cost;

h. All decisions and/or practices that You undertook if a Publisher turned off DA or EDA, including but not limited to Your decision and/or practice of AdX not offering live, competitive bidding;

i. Whether under DA or EDA, the AdX auction was required only to meet, or to beat (and if so by how much), the reserve price in order to win the impression.

41. The timing of launches and experiments for Dynamic Allocation and Enhanced Dynamic Allocation, including:

a. The date of the launch of the Beta version(s);

28

b. The date of the launch of the GA version(s);

c. The date the product/feature or each product/feature version was deprecated.

SELL-SIDE DYNAMIC REVENUE SHARE ("DRS")

42.   Sell-Side Dynamic Revenue Share ("DRS"), including, but not limited to:

a. How all iterations of DRS operate, including how all iterations of DRS

operate with Dynamic Allocation and/or Enhanced Dynamic Allocation, and

how DRS pools are managed, including any constraints on these pools;

b. Your decision to implement DRS, including all iterations thereof;

c. The time period(s) for which all versions of DRS were operational, including:

   i. Date of the launch of the Beta versions;

   ii. Date of the launch of the GA versions;

   iii. Date the products were deprecated.

d. Whether Google currently dynamically alters the revenue share of any of its

products, including where and how such revenue shares are altered, and if not,

whether Google plans to implement any dynamic revenue share altering

programs or features;

e. Any program or feature that dynamically adjusted margins, revenue share,

take rates or the fees Google charged to transact via AdX;

f. The effects of each version of DRS on prices paid for impressions to

Publishers, Your exchange fee, margin, revenue share, or take rate including

but not limited to the time at which DRS adjusted Your exchange fee, revenue

share, margin, or take rate in relation to the time at which bids were solicited;

29

g. Whether You ever dynamically altered the AdX take rate below 0% to be negative, so as to boost or subsidize bids in the AdX auction, and in what circumstances You did so;

h. Your decision to opt Publishers into DRS v1 or any predecessor thereof and whether and to what extent You opted Publishers into DRS v1 or any predecessor thereof and whether and how, if at all, Google disclosed to Publishers their enrollment therein;

i. Advertisers' or DSPs' awareness or knowledge of the implementation of each version of DRS, and any studies analyzing the impact of each version of DRS on Advertisers' or DSPs' bidding strategies;

j. The ability of a Publisher to opt out of DRS v1 (or any predecessor) and Your communications internally and externally relating to the same;

k. The number and identity of all Publishers who were opted into the first version of DRS (or any version or iteration of DRS prior to DRS v2) when it was initially implemented;

l. Your exclusion of DBM and GDN from any version(s) of DRS and the reason for such exclusion;

m. The aggregate number of transactions and impressions on AdX from January 1, 2012 to the present in which the implementation or operation of DRS resulted in exchange fees for publisher inventory, or Your take rates, margins, or revenue shares, that were higher than they otherwise would have been had DRS not been implemented or operational;

n. Your analysis of the impact of this practice on Your market share, Your competitors' market share, and the share of impressions won;

o. The "revenue opportunity" for each iteration of DRS over time, and the number of publishers who had DRS applied to the sale of their inventory on AdX over time, as a percentage of this "revenue opportunity," as used in, e.g., GOOG-TEX-00520742 at -868;

p. The "adoption by revenue" of each iteration of DRS over time, as used in GOOG-AT-MDL-019521348 at -349;

q. The impact of DRS on Your Metrics, Publishers' and/or Advertisers' Metrics, and Your competitors' Metrics;

r. Contracts and communications related to DRS.

BERNANKE

43. Bernanke (also known as dynamic buy-side revenue share), including:

a. how Project Bernanke, Bell (v.1 and v.2), Global Bernanke, and Alchemist operate, including but not limited to: any data inputs to the Bernanke and Alchemist algorithms and the relevant source code; the variables that these programs are trying to optimize, and any constraints imposed on the optimization; and any pools keeping track of adjustments and constraints on these pools;

b. Your decision to implement Project Bernanke, Bell (v.1 and v.2), Global Bernanke, and Alchemist, and any plans, discussions or attempts to implement any of these programs for other Google Ad Buying Tools such as DV360;

c. The impact of Project Bernanke, Bell (v.1 and v.2), Global Bernanke, and

Alchemist on Your Metrics, Publishers' and/or Advertisers' Metrics, and

Your competitors' Metrics;

d. Your analysis of the impact of this practice on Your market share, Your

competitors' market share, and the share of impressions won;

e. The time periods in which Project Bernanke, Bell (v.1 and v.2), Global

Bernanke, and Alchemist were operational, including:

i. The date of the launch of the Beta versions;

ii. The date of the launch of the GA versions;

iii. Date the products were deprecated.

CAPPING LINE ITEMS

44.   Your practice of capping or otherwise limiting Publisher line items in Your Ad
Server, including: the role that Header Bidding had in Your decision to implement, expand, or
modify that practice; the timing of any changes to Your policies or practices regarding line items
caps or limits and the nature of those changes; and the impact of that practice on Your market
share, Your competitors' market share, the share of impressions won through Header Bidding,
Your Metrics, Publishers' and/or Advertisers' Metrics, and Your competitors' Metrics.

REDACTING AUCTION DATA

45.   Your practice(s) of redacting or removing data fields from Publishers'
consolidated auction records, including:

a. All data fields You redacted from Publishers' consolidated auction records,

including the fields "Key Part" and "TimeUsec2";

b. The reasons or justifications for Your decision to redact certain data fields from Publishers' consolidated auction records, including Your analysis of alternative means or mechanisms of achieving those reasons or justifications;

c. Your analysis of the impact of this practice on Your market share, Your competitors' market share, the share of impressions won through Header Bidding, Your Metrics, Publishers' and/or Advertisers' Metrics, and Your competitors' Metrics;

d. The time period(s) that you engaged in the practice(s), including:

   i. The date of the launch of the Beta version(s);

   ii. The date of the launch of the GA version(s);

   iii. The date, if any, on which you discontinued the practice(s);

   iv. The timing and nature of other major changes over time to the practice(s).

UNIFIED FIRST PRICE AUCTION AND UNIFIED PRICING RULES ("UPR")

46. Unified First Price Auction, including but not limited to:

a. How the Unified First Price Auction operates;

b. Your decision to migrate AdX to a Unified First Price Auction and Your consideration of bid translation;

c. Internal tests, experiments, simulations, or studies, which measure, forecast, predict, study, or research the impact that Your decision to impose a Unified First Price Auction has had on the sale of Ad Inventory through Third-Party Exchanges and/or Third-Party Ad Buying Tools, and the adoption of Header Bidding;

    d. Internal tests, experiments, simulations, or studies, which measure, forecast, predict, study, or research the impact that Your decision to impose a Unified First Price Auction has had on the floor prices experienced by GDN and/or DV360 advertisers in the AdX auction;

    e. The impact of the Unified First Price Auction separate from UPR on Your market share, Your competitors' market share, the share of impressions won through Header Bidding, Your Metrics, Publishers' and/or Advertisers' Metrics, and Your competitors' Metrics.

47.   Unified (or Uniform) Pricing Rules ("UPR"), including, but not limited to:

    a. How UPR operate;

    b. Your decision to implement UPR;

    c. The time period UPR were operational, including:

        i. Date of the launch of the Beta version;

       ii. Date of the launch of the GA version;

      iii. Date the product was deprecated.

    d. Your understanding of Publishers' use of differential price floors (e.g., per-Ad Exchange or per-ad buying tool), including using price floors to increase revenue, diversify sources of revenue, and improve quality of advertisements prior to the implementation of UPR;

    e. Attempts by any Publisher, SSP, or Publisher ad network to circumvent UPR, and all exceptions to or accommodations or variations of UPR requested by Publishers and Your decision whether to approve or reject such requests;

f.   Internal tests, experiments, simulations, or studies, which measure, forecast, predict, study, or research the impact that Your decision to adopt UPR would have or has had on the sale of Ad Inventory through Third-Party Exchanges or the adoption of Header Bidding;

g.   Internal tests, experiments, simulations, or studies, which measure, forecast, predict, study, or research the impact that Your decision to adopt UPR would have or has had on the floor prices experienced by GDN and/or DV360 advertisers in the AdX auction;

h.   The quantitative differential in the floor prices experienced by GDN and/or DV360 advertisers in the AdX auction before and after the implementation of UPR;

i.   The impact of UPR, separate from the move to the Unified First Price Auction, on Your market share, Your competitors' market share, the share of impressions won through Header Bidding, Your Metrics, Publishers' and/or Advertisers' Metrics, and Your competitors' Metrics.

MINIMUM BID TO WIN

48.   Minimum Bid to Win (MBW), including, but not limited to:

a.   How MBW operates, how MBW is calculated, how MBW is shared with Google and non-Google buyers, what information and data fields are passed on as part of MBW, and how the foregoing has changed over time;

b.   Your decision to provide MBW to certain auction participants, including the role of Your buy-side team in making that decision, and Your decision to initially not provide MBW to Header Bidders;

c. The time period MBW was operational, including:

   i. Date of the launch of the Beta version;

  ii. Date of the launch of the GA version;

 iii. Date the product was deprecated.

d. Your decision to define MBW information as including the highest other bid

    for winning bidders and the winning bid for losing bidders, and specifically,

    Your decision to refrain from providing the highest other bid to losing

    bidders;

e. The percentage and absolute daily number of AdX auctions for which GDN

    and/or DV360 receive MBW information that identifies the highest other bid

    in the AdX auction and, for the DSPs receiving the next 5 highest percentages

    of MBW information that identifies the highest other bid in the AdX auction,

    the identity of each DSP, the percentage of AdX auctions for which they

    receive MBW information that identifies the highest other bid in the AdX

    auction, and the average number of daily impressions for which they receive

    MBW information that identifies the highest other bid in the AdX auction;

f. For each of the DSPs identified in subpart (e), the extent to which Your

    prediction of Highest Other Bid in Your bidding algorithm would be degraded

    if You were limited to the number of daily impressions for which those DSPs

    receive MBW information that identifies the highest other bid in the AdX

    auction;

g. Whether all pricing information, including but not limited to the MBW field, is provided to all auction participants or whether certain pricing information is only provided to Google;

h. Your use of MBW information, including in developing bid-shading algorithms (*e.g.*, pHOB);

i. How quickly Google and non-Google buyers receive MBW information, and how quickly Google and non-Google buyers can use MBW information to predict the highest other bid for a successive auction;

j. The impact of MBW on Your market share, Your competitors' market share, the share of impressions won through Header Bidding, Your Metrics, Publishers' and/or Advertisers' Metrics, and Your competitors' Metrics;

k. The data inputs to the pHOB model, and the definitions of the pHOB outputs and inputs.

POIROT AND ELMO

49. Project Poirot and Project Elmo, including, but not limited to:

a. How Project Poirot and Elmo operate;

b. The design, development, and operation of each version of Project Poirot and Project Elmo;

c. The time period Project Poirot and Elmo were operational, including:

  i. Date of the launch of the Beta versions;

  ii. Date of the launch of the GA versions;

  iii. Date the products were deprecated.

d. Ability of buyers to opt out and data on how frequently buyers opted out;

e.   The reasoning behind the decision to preemptively opt buyers out of Poirot;

f.   How Poirot and Elmo were used to identify which Ad Exchanges were likely participating in Header Bidding;

g.   How DV360 adjusted bids for impressions under Poirot and/or Elmo;

h.   The impact of Poirot and/or Elmo on win rates and price trends of AdX, match rate, or revenue share (and the amount of any such impact in each calendar quarter);

i.   The impact of Poirot and/or Elmo on Your market share, Your competitors' market share, the share of impressions won through Header Bidding, Your Metrics, Publishers' and/or Advertisers' Metrics, and Your competitors' Metrics.

50.   The use or application of risk-adjustment factors in Google's bidding algorithms for bidding on third-party ad exchanges and/or AdX, including specifically, any risk adjustment factor(s) used and the coefficients used for such risk adjustment factor(s) for:

a.   DBM/DV360 fixed price bidders;

b.   DBM/DV360 optimized bidders.

51.   All distinctions in the bidding algorithms used for GDN bidding on AdX and GDN bidding on third party exchanges.

RESERVE PRICE OPTIMIZATION

52.   Reserve Price Optimization (including "Dynamic Reserve Price Optimization" and "Bulbasaur," collectively "RPO"), including:

a.   How RPO operated, including in both second-price and first-price auctions;

b.   Your decision to implement RPO;

c.   The impact of RPO on Your Metrics, Publishers' and/or Advertisers' Metrics, and Your competitors' Metrics;

d.   Your analysis of the impact of this practice on Your market share and Your competitors' market share; and

e.   The time period(s) in which RPO was operational, including:

   i.   The date of the launch of Beta versions;

   ii.   The date of the launch of GA versions; and

   iii.   Date the products were deprecated.

HEADER BIDDING

53.   Header Bidding, including, but not limited to:

a.   The monthly share of impressions and revenue served by DFP or transacted through AdX, as well as the monthly share of impressions transacted by and revenue for any other Publisher Ad Server, Ad Exchange, or Ad Network or through Header Bidding;

b.   Understanding on a technical level of how Header Bidding interacts with the larger Google ad tech stack;

c.   Your decision not to support the option for Publishers to use Header Bidding in GAM, DFP, or Open Bidding, and to prohibit AdX or GAM from returning bids through Header Bidding;

d.   Your decision not to allow GDN or DV360 to participate directly in Header Bidding;

e. Any changes you made to Your Ad Tech Products in connection with or that had an effect on header bidding, including line item caps, any data redactions, or failure to share data (including, but not limited to min_bid_to_win data);

f. Contracts between You and any third-party Ad Exchange, SSP, or Publisher that contains any provision that requires such entity to make Ad Inventory available through Open Bidding if it also sells that inventory through Header Bidding;

g. Your Decision to introduce a new type of Bid Data Transfer file that contains bidding data from Authorized Buyers and Open Bidding but does not contain impression-level data or Header Bidding data;

h. Efforts undertaken, policies implemented, and/or buying strategies implemented by You to avoid buying Ad Inventory through Header Bidding auctions;

i. The impact that Your decision to move to a Unified Auction or adopt UPR would have or has had on the adoption of Header Bidding;

j. Your decision not to support the option for Publishers to use Header Bidding in GAM, DFP, or Open Bidding, and to prohibit AdX or GAM from returning bids through Header Bidding.

54. Header Bidding's impact on winning prices paid by Advertisers and/or received by Publishers for impressions and take rates charged by ad exchanges.

55. Your decision to charge a fee to Ad Exchanges that participated in Open Bidding or Exchange Bidding and the impact of that fee on third-party Ad Exchange's ability (or lack thereof) to win impressions against AdX.

56.   The operation of Last Look with Open Bidding, and Your eventual decision to remove Last Look for Open Bidding, if such a decision was taken.

57.   The time period(s) in which Exchange Bidding, Network Bidding, and Open Bidding were operational, including:

    a. Date of the launch of the Beta versions;

    b. Date of the launch of the GA versions;

    c. Date the products were deprecated.

58.   Your contracts between You and any third-party Ad Exchange, SSP, or Publisher that contains any provision that requires such entity to make Ad Inventory available through Open Bidding if the entity also sells that inventory through Header Bidding.

BUSINESS RECORDS

59.   The authenticity and/or status as business records of documents produced by You in this litigation, of documents posted by you on Your website(s), and/or of transcripts of depositions of Google employees or former employees taken in connection with the investigation by the Department of Justice of Google's search and advertising practices from in or about 2019, *United States v. Google LLC*, No. 23-cv-108-LMB-JFA (E.D. Va.), or *State of Texas v. Google LLC*, No. 20-cv-957-SJD (E.D. Tex.).

*   *   *

INFORM INC. & ONLINE VIDEO ADVERTISING TOPICS

ONLINE VIDEO ADVERTISING (OLVA)

60.   How, if at all, any Ad Tech Auction Mechanics functioned differently for online video advertising, any competing online video platform, and/or any YouTube video advertising from 2012 through 2019.

61.   Any Google program, project or algorithm responsible for the calculation of any eCPM, "EDA Price," "opportunity cost," "EDA opportunity cost" or "temporary CPM," "Ad Rank," "Quality Score" and/or any calculated values relevant to determining the winner of advertising auctions for online video advertisements between 2010 and 2019, including but not limited to the pacing algorithm, pricing algorithm, satisfaction index, weighting, optimization and matching ranker.

62.   How, if at all, the calculation of any eCPM, "EDA cost," "opportunity cost" or "temporary CPM," "Ad Rank," "Quality Score" and/or any calculated values relevant to determining the winner of advertising auctions differed as between online video advertisements and non-video advertising between 2012 and 2019.

63.   Any OLVA products, services, or technology You observed in the market and adopted from competitors, including but not limited to video player type or experience and revenue model, the strategy considerations for adopting the same and the impact on Google's business model (revenue, number of impressions viewed, customers, etc.).

64.   Any OLVA products, services, video players, or technology offered by competitors that You designated as an unapproved ad experience, forbidden player execution, or other purported policy violation, including but not limited to:

     a.   How and by whom or what such designation was determined;

     b.   How the implementation of such products, services, video players, or technology was addressed by Google;

     c.   Whether Google ultimately developed a competing product, service, video player or technology; and

d. Which Google product(s) and/or service(s) (e.g., DFP, AdX, GAM, Chrome Browser) were responsible for identifying, disallowing or shutting down any such competitor innovation or product.

65. Google's available rules, protections, and controls within both AdX and DFP related to pricing, blocking, frequency capping, video ad duration or skip-ability, and whitelisting, including:

a. whether those rules protections, and controls are available to publishers (via AdX and/or DFP), to Google exclusively (i.e. internally), or to both;

b. where any such rule, protection or control can be found or is housed (e.g., AdX or DFP);

c. whether and how the implementation or application of each rule, protection, or control differs with respect to direct versus indirect ads; or with respect to video versus non-video ads;

d. the default setting for each rule, protection, or control, as well as any related opt-in or opt-out default;

e. the source code as respects any such rule, protection or control;

f. whether any overrides or exemptions are available, and the details of when and how any such overrides or exemptions are implemented or applied; and

g. how each of the above has changed over time.

DIRECT AD SALES

66. Any Google program, project or algorithm responsible for affecting or altering, or otherwise disregarding, the publishers' set, implemented or chosen "DFP priorities" (as the term is used in GOOG-AT-MDL-011291703) in the ad server between 2012 and 2019.

67.   Any programs, algorithms, plans or efforts to affect, change or reduce the sale or placement of direct sold ads and/or intended to supplant, replace or displace directly sold ads between publishers and advertisers with a Google product or service between 2012 and 2019.

68.   Any programs, algorithms, plans or efforts to position AdX to or ensure that AdX could compete for any and all digital ad inventory or otherwise increase AdX market share between 2012 and 2019.

69.   Any efforts, projects, transitions, or other preference by Google related to the favoring or promoting of programmatic advertisements, backfill ads, or remnant ads over direct sold (or pre-sold or reserved) advertisements within its Ad Tech Products, including any related Ad Auction Mechanics or any related internal policies, procedures, or practices.

70.   All actions taken by Google against Inform, Inform's video ad technology, or Inform's video ad inventory, including but not limited to any blacklisting, refusal to serve, throttling, and/or pacing of ad campaigns that affected:

    a. the serving of any video ad on any Inform publisher property;

    b. the valuation of Inform's ad inventory;

    c. the playing of any Inform video advertisement;

    d. the function and/or operation of any Inform video ad player;

    e. the fulfillment of any Inform ad campaign; and

    f. Payment to Inform.

YOUTUBE

71.   The market in which You believe YouTube participates, any products that You consider to be competitors to YouTube (and how the availability of such products changed over

time, if at all), YouTube's market share in such market, and the market share of the competitors

You identify (if any).

72.   Your analysis and technical implementation of Your decisions to restrict or limit

access to YouTube video inventory:

      a.   only to DoubleClick Bid Manager (DBM), Google AdWords, and Google

         Preferred;

      b.   to remove YouTube video inventory from DoubleClick Ad Exchange by

         January 1, 2016;

      c.   to restrict all non-Google buying platforms from bidding on and purchasing

         YouTube video ad inventory; and

      d.   to offer to reopen YouTube ad inventory in response to competition concerns.

73.   How YouTube is integrated and/or related to Google's other Ad Tech Products,

including but not limited to the relationship between the serving, auction, and display of video

ads on YouTube, and the serving, auction, and display of video ads on other websites and how

that has changed over time.

74.   Differences between the requirements and capabilities of video ads served

through DFP and those served by and to YouTube and its ad server functionality between 2012

and 2019.

75.   Any difference of treatment, whitelisting of, or plan to whitelist YouTube as

respects:

      a.   Any policy, practice, standard, process, rules, protections, controls and

         settings regarding DFP or imposed by DFP;

      b.   Any policy, practice, standard, process, rules, protections, controls, and settings regarding AdX or imposed by AdX;

      c.   Any policy, practice, standard, process, rules, protections, controls, regarding Chrome Browser;

      d.   any Chrome Browser default setting;

      e.   or any different treatment that ads served on YouTube received during the relevant period;

      f.   Any video ad rule, rules or policies not included above.

DEPRECATION OF FLASH

76.   Any transition by Google away from the buying, selling, auction, serving, or display of Flash video advertisement for YouTube, in its Chrome browser, or as part of any of its Ad Tech Products, including for each:

      a.   the reasons and internal decision-making surrounding the transition;

      b.   any profit or revenue considerations or analyses related to the transition;

      c.   any of Google's Ad Tech Auction Mechanics involved in the transition;

      d.   when Google began the process internally;

      e.   when Google announced changes externally;

      f.   Any Flash to HTML conversion implemented by Google for video advertisement on YouTube, in its Chrome browser, or as part of any of its Ad Tech Products the difference between internal and external communications; and

      g.   how each of the above changed over time.

USE OF CLIENT DATA

77.   Google's internal policies, procedures, or practices related to the usage of data it

collects from customers of its Ad Tech Products, including:

a.   whether and how Google utilizes the data to contact and/or solicit business

from other customers of its Ad Tech Products or third parties;

b.   how such data is accessed, stored, and used and with which of Your Ad

Tech Products such data is shared;

c.   the function of the Revenue Intelligence Group; and

d.   the use of DFP clients' data or set ups to change or solicit changes to the

client's settings in DFP in order to preference AdX or to de-prioritize

competitors.

HIGH NEWS DAYS AND NEWS SPIKES

78.   Any Google program, project or algorithm implemented during, triggered by, or

designed to account for high internet traffic, high news days, news spikes, or days when

impression inventory on the Internet spiked or markedly increased between 2012 and 2019.

79.   Your design and implementation of algorithms concerning ad pacing, traffic

shaping, satisfaction index, delivery and/or any other metric or measure used to track the serving

of ad campaigns, including:

a.   Changes to any such algorithms after the merger of DFP and AdX;

b.   Changes to any such algorithms as between DART, XFP, DRX, and

GAM;

c.   How these algorithms changed over time.

CHROME BROWSER SETTINGS

80.   All Chrome Browser settings affecting the display, functioning and operating of video advertisements and video players, including but not limited to:

        a.   default settings;

        b.   settings alterable by the user;

        c.   settings alterable by the publisher;

        d.   settings alterable by the advertiser; and

        e.   settings alterable only by You.

81.   Differences between the Chrome Browser functioning, requirements, capabilities and policies for video ads served through DFP and those served by and through YouTube on the YouTube Platform (as defined by your Terms of Service) between 2012 and 2019.

82.   Whether and how Google's Chrome Browser operated to or was involved in disabling, pausing, muting, throttling, pacing below another ad or campaign, or otherwise restricting or limiting video ads and video ad campaigns.

83.   Whether and how video ads served and displayed on YouTube were treated differently from video ads served and displayed on Inform sites and sites other than YouTube, including but not limited to (1) what ad server is used for YouTube and (2) whether and how Chrome Browser settings or functionality differs for YouTube.

INTERNAL VS. EXTERNAL COMMUNICATIONS

84.   Google's internal and external communications (or "comms") for each of the Ad Auction Mechanics, including but not limited to:

        a.   who was responsible for drafting and approving the same;

        b.   how they differed as between internal vs. external communications;

c.   how they differed as between communications to publisher vs.

communications to advertisers;

d.   whether or not a blog was posted as respects particular Ad Auction

Mechanics; and

e.   How internal and external communications evolved overtime.

POLICIES AND POLICY VIOLATIONS

85.   Any policies concerning online video advertisements including but not limited to:

a.   what types of violations Google identifies;

b.   how such policy violations are enforced;

c.   whether and how such policies differ for Your Ad Tech Products;

d.   where such policies, their implementation and the effect of any purported

violation are listed;

e.   how alleged policy violations are disclosed to publishers and advertisers;

f.   any appeals or challenge process for claimed violations;

g.   the consequences of policy violations;

h.   Any way that Your Ad Tech Products and YouTube are exempted in part

or in full from any of the policy violations policies; and

i.   any internal or external communication of the IAB or IAB Tech Lab

drafted by Google.

CERTIFICATE OF SERVICE

I, Philip Korologos, hereby certify that on May 10, 2024, I caused the foregoing Notice of

Deposition to be served via email on the following counsel:

Eric Mahr
Julie Elmer
Andrew J. Ewalt
Jan Rybnicek
Lauren Kaplin
FRESHFIELDS BRUCKHAUS DERINGER US LLP
700 13th Street NW, 10th Floor
Washington, DC 20005
Telephone: (202) 777-4500
eric.mahr@freshfields.com
julie.elmer@freshfields.com
andrew.ewalt@freshfields.com
jan.rybnicek@freshfields.com
lauren.kaplin@freshfields.com

Robert J. McCallum
FRESHFIELDS BRUCKHAUS DERINGER US LLP
3 World Trade Center
175 Greenwich Street
New York, NY
(212) 284-4910
rob.mccallum@freshfields.com

Justina Sessions
FRESHFIELDS BRUCKHAUS DERINGER US LLP
Silicon Valley
855 Main Street
Redwood City, CA
Telephone: (650) 618-9250
justina.sessions@freshfields.com

Daniel S. Bitton
AXINN, VELTROP & HARKRIDER LLP
55 2nd Street
San Francisco, CA 94105
Telephone: (415) 490-2000
dbitton@axinn.com

50

David R. Pearl
Bradley Justus
Allison M. Vissichelli
AXINN, VELTROP & HARKRIDER LLP
1901 L Street NW
Washington, DC 20036
Telephone: (202) 912-4700
dpearl@axinn.com
bjustus@axinn.com
avissichelli@axinn.com

Counsel for Defendants Google LLC, Alphabet Inc., and YouTube LLC

Julia Tarver Wood, Senior Litigation Counsel
Aaron M. Teitelbaum, Senior Litigation Counsel
Jeffrey G. Vernon, Senior Litigation Counsel
Milosz Gudzowski, Trial Attorney
Michael E. Wolin, Trial Attorney
United States Department of Justice
Antitrust Division
450 Fifth Street NW, Suite 7100
Washington, DC 20530
Telephone: (202) 307-0077
Julia.Tarver.Wood@usdoj.gov
Aaron.Teitelbaum@usdoj.gov
Jeffrey.Vernon@usdoj.gov
milosz.gudzowski@usdoj.gov
Michael.Wolin@usdoj.gov

Attorneys for the United States

Dated: May 10, 2024   */s/ Philip Korologos*
                                                          Philip Korologos